

## PROHIBITING OFFSHORE ENERGY DEVELOPMENT

(Mr. THOMPSON of Pennsylvania asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. THOMPSON of Pennsylvania. Mr. Speaker, in 2008, the President and the House of Representatives lifted the 24-year-old moratorium on offshore oil and gas production on most of our Atlantic and Pacific coasts. Back in March, President Obama pushed for offshore oil drilling in the eastern Gulf of Mexico and the Atlantic coast through 2017. Then in April, the BP oil spill happened. That disaster is certainly a cautionary tale.

Yet, in the first week in December, Secretary of the Interior Ken Salazar, without an act of Congress or a Presidential executive order, single-handedly prohibited offshore energy development from 2012 to 2017—a 5-year plan for offshore leasing. In reality, this change means no new production can even begin until 2022, if then.

That is not the way to reduce our rising dependence on foreign oil or to solve our unemployment problem or our lack of economic growth. We must learn our lessons from the Gulf of Mexico oil spill and proceed with care—but we must proceed.

President Obama, through Secretary Salazar and strangulation by regulation, has set back our country's path to energy security by at least 12 years, which is certain to produce higher energy prices and to increase our dependence on foreign imports—hardly sound energy policy.

## WE MUST PASS THE SENIORS PROTECTION ACT OF 2010

(Ms. JACKSON LEE of Texas asked and was given permission to address the House for 1 minute.)

Ms. JACKSON LEE of Texas. Mr. Speaker, it is great news that we gave an opportunity to young people today by passing the DREAM Act, but shame on us that we did not pass the Seniors Protection Act of 2010.

Democrats rallied to make a commitment to the Nation's seniors for a \$250 refund as they listened to the horrible pronouncement that they would not get a cost-of-living increase. We owe them. We owe them because of the hard work that they have contributed over the decades to build this Nation. They have provided us with years and years of work, of investment and production and of part of the manufacturing history of this country.

How can we leave this session and not provide our seniors with relief?

So I call upon my colleagues to rally together for what is right for those seniors, who have carried the flag, who have fought in our wars, who have nurtured the sick, who have raised our children, and who have invested in America. It is time to pass the Seniors Protection Act of 2010. We should not leave this Congress and not finish this year without passing this relief for the

seniors of America—patriots, deserving—all of them.

## MEDICINAL MARIJUANA IS A MISNOMER

(Mr. KAGEN asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. KAGEN. Mr. Speaker, I rise this morning, before everyone begins their conversations about tax cuts, about jobs, about immigration, to raise a serious health concern. You know, when I was brought up in northeast Wisconsin, my father taught me that if it's good for business, it's going to happen; I would just like it to be legal. And the subject I am going to mention here is the idea, the false idea of medicinal marijuana.

There is nothing safe about smoking. There is nothing safe about smoking an illicit product called marijuana. Marijuana is universally contaminated with a mold spore *Aspergillus*, *Mucor*, *Penicillium*, and other items that will harm human health.

This House, this body has do what's best for people. We need a healthy economy and we need healthy people at work. So don't make the mistake of thinking at any point in time that there is something safe about smoking medicinal marijuana, which is a misnomer.

So I look forward later today to passing House Resolution 1540 that addresses the illicit production of marijuana on Federal lands.

## MARIJUANA SMOKING AND FUNGAL SENSITIZATION

(Steven L. Kagen, M.D., Viswanath P. Kurup, Ph.D., Peter G. Sohnle, M.D., and Jordan N. Fink, M.D. Milwaukee, Wis.)

The possible role of marijuana (MJ) in inducing sensitization to *Aspergillus* organisms was studied in 28 MJ smokers by evaluating their clinical status and immune responses to microorganisms isolated from MJ. The spectrum of illnesses included one patient with systemic aspergillosis and seven patients with a history of bronchospasm after the smoking of MJ. Twenty-one smokers were asymptomatic. Fungi were identified in 13 of 14 MJ samples and included *Aspergillus fumigatus*, *A. flavus*, *A. niger*, *Mucor*, *Penicillium*, and thermophilic actinomycetes. Precipitins to *Aspergillus* antigens were found in 13 of 23 smokers and in one of 10 controls, while significant blastogenesis to *Aspergillus* was demonstrated in only three of 23 MJ smokers. When samples were smoked into an Andersen air sampler, *A. fumigatus* passed easily through contaminated MJ cigarettes. Thus the use of MJ assumes the risks of both fungal exposure and infection, as well as the possible induction of a variety of immunologic lung disorders. (*J Allergy Clin Immunol* 71:389, 1983.)

The recreational and medicinal use of MJ has reached epidemic proportions. The National Institute on Drug Abuse has documented that nearly one in 10 American high school seniors use MJ on a daily basis.<sup>1</sup> Furthermore, a survey of adult and pediatric oncology centers reveals that a substantial population of patients receiving cancer chemotherapy are now encouraged to use MJ as an antiemetic.<sup>2</sup>

The medicinal use of MJ, however, is not without risks. MJ may contain toxic sub-

stances such as Agent Orange, phencyclidine, or paraquat, and outbreaks of salmonellosis and hepatitis B have been traced to MJ.<sup>3-5</sup> Similarly, *Aspergillus* has been cultured from MJ and has been considered the likely source of infection in patients who have developed invasive pulmonary and allergic bronchopulmonary aspergillosis.<sup>6-8</sup> Due to the widespread use of MJ by normal and immunodeficient individuals, we thought it important to evaluate its possible role as a source of exposure and sensitization to *Aspergillus* organisms. Preliminary results of our investigations revealed that MJ contains pathogenic, inhalable *Aspergillus* organisms that may sensitize the user.<sup>9,10</sup> This article presents additional *in vitro* studies and further documents the spectrum of fungal organisms present in MJ.

## MATERIALS AND METHODS

### SUBJECTS

A total of 28 subjects were randomly selected to be evaluated for immunologic reactivity toward *A. fumigatus*, to which they may have been exposed while smoking MJ. Medical histories, physical examinations, cultures of their MJ, and serologic studies were performed. Ten age-matched individuals who denied ever having smoked MJ served as controls.

### CULTURES

Samples of MJ were plated directly onto SGA, SGA with antibiotics, TSA, and TSA with novobiocin. SGA plates were incubated at room temperature and at 37° C, while TSA plates were incubated at 55° C. Plates were observed daily for growth of organisms. Any growth appearing was subcultured, purified, and identified according to standard methods.<sup>11,12</sup>

### IMMUNOLOGIC STUDIES

**Precipitins.** Serum precipitins against *A. fumigatus*, *A. flavus*, and *A. niger*, the predominant cultured organisms, were evaluated by agar gel diffusion as previously described.<sup>13,14</sup> Serum precipitin assays were also performed with routine culture filtrate antigens from *Thermoactinomyces candidus* and *T. vulgaris*, *Mucor*, and *Penicillium* species to better assess the significance of circulating precipitins to *Aspergillus* antigens in MJ smokers.

**Abbreviations used**

MJ: Marijuana

SGA: Sabouraud's glucose agar

TSA: Trypticase soy agar

CPM: Counts per minute

Con-A: Concanavalin A

PMN: Polymorphonuclear

THC: Delta-9-tetrahydrocannabinol

**Lymphocyte transformation.** Lymphocytes were obtained from peripheral blood by Hypaque-Ficoll centrifugation and suspended at 0.25 x 10<sup>6</sup> cells/ml in 0.4 ml of RPMI tissue culture medium (Gibco, Inc., Grand Island, N.Y.), using 15% pooled human plasma, with penicillin, streptomycin, and glutamine added. The cells were cultured with or without stimulants in a humidified atmosphere containing 5% CO<sub>2</sub>, for 5 days, at which time 1  $\mu$ Ci of <sup>3</sup>H-thymidine was added. Twenty-four hours later the cells were harvested onto glass fiber filters. The incorporation of <sup>3</sup>H-thymidine was counted by scintillation counting and data were expressed as either total CPM or stimulation ratios (CPM experimental/CPM control). A positive result is defined as CPM >3000 and stimulation ratios >4.0, as previously described.<sup>15</sup> Antigens and mitogens employed included Con-A (Miles Laboratories, Inc., Elkhart, Indiana), *A. fumigatus*, *A. niger*, and *A. flavus*. The optimal final concentrations of mitogens were determined in preliminary experiments with either human or guinea pig lymphocytes (A.

fumigatus, 5 µg/ml; A. niger, 50 µg/ml; Con-A, 10 µg/ml).

FUNGAL INHALATION

MJ cigarettes were obtained from patients and attached to an Andersen air sampler via rubber tubing. The cigarettes were then lit and the smoke was drawn into the sampler, deposited onto plates, and cultured. Additional unlit MJ cigarettes were similarly assessed. Control samplings of laboratory air were also obtained.

RESULTS

The results are summarized in Tables I and II.

SUBJECTS

The study population consisted of 16 female and 12 male patients, ranging in age from 17 to 36 yr, including 18 tobacco cigarette smokers. The duration of MJ use varied from 6 mo to 14 yr, with a mean of 9 yr. The total number of MJ cigarettes smoked was estimated by multiplying the daily average by total duration expressed in days. Patient 1 had systemic aspergillosis and presented with complaints of fatigue, night sweats, and coughing episodes associated with MJ use. The chest film revealed bilateral interstitial infiltrates, and A. niger was cultured from sputum, nasal secretions, skin pustules, urine, and an open lung biopsy. Hematologic studies, immunoglobulin levels, and complement components were normal, and he was later found to have a defective PMN oxidative enzyme system.

Patients 2, 3, 4, 6, 27, and 28 admitted experiencing cough and wheezing after MJ exposure. Additionally, patient 6 experienced a "chest cold" for 2 mo, which included cough, thick brown sputum, and body aches, all of which disappeared shortly after discontinuing the use of 60 to 70 MJ cigarettes weekly. The remaining 21 patients had no history of immediate or delayed respiratory symptoms with MJ use.

CULTURES

Thirteen of 14 MJ samples contained potentially pathogenic fungi in various combinations. The flora consisted of A. fumigatus, A. flavus, A. niger, Mucor, Penicillium, and thermophilic actinomycete species in varying densities, but with Aspergillus predominating.

IMMUNOLOGIC STUDIES

Thirteen of 23 MJ-smoking subjects had precipitins against at least one of the Aspergillus antigens. In the control sample of 10 MJ-nonsmoking individuals, one had a precipitin line against A. fumigatus and A. niger (p < 0.02). There were no differences between the MJ-smoking group and the control group with regard to precipitins to antigens other than Aspergillus (Table II).

Significant blast transformation to A. niger in the MJ-smoking group occurred in only three of 23 subjects, whereas all demonstrated significant blastogenesis to Con-A, a nonspecific mitogen.

FUNGAL INHALATION

Fungal inhalation studies with MJ sample 25 revealed that both lit and unlit cigarettes allowed the passage of fungal spores. A. fumigatus in particular traveled through the MJ cigarettes unimpeded in both lit and unlit conditions. Control samplings of laboratory air were repeatedly negative for fungal growth.

DISCUSSION

MJ can now be found in nearly every high school in America, and in a growing number of medical communities. Several clinical trials employing THC and other cannabinoids present in MJ have demonstrated its potentially significant antiemetic effect.<sup>16-21</sup> Because serum levels

of THC are best attained via inhalation, it has been advocated that THC and MJ be inhaled by oncology patients shortly prior to receiving cancer chemotherapy.<sup>18, 22</sup> Our studies, however, have shown that illicit MJ must now be assumed to contain pathogenic inhalable fungi. As such, its use by immunosuppressed oncology patients should be discouraged.

The spectrum of fungi found in MJ included the following organisms: Aspergillus fumigatus, Aspergillus niger, Aspergillus flavus, Mucor, Penicillium spp, and Thermoactinomyces candidus, and Thermoactinomyces vulgaris. When inhaled, these organisms are known to cause a variety of immune lung disorders, ranging from asthma, allergic bronchopulmonary aspergillosis and hypersensitivity pneumonitis to invasive systemic fungal infections in immunoincompetent hosts. In addition to identifying these fungi, we have demonstrated that A. fumigatus may be inhaled in contaminated MJ cigarette smoke.

TABLE II. PRECIPITINS TO ROUTINE ANTIGENS

	T. vulgaris	T. candidus	Mucor	Penicillium spp
MJ smokers	4/28	9/28	3/28	5/28
Controls	2/9	4/9	3/9	2/9

The presence of circulating precipitins to any given antigen is generally taken to mean that a significant immunologic exposure to that antigen has taken place. Aspergillus precipitins may thus arise from repeated antigenic inhalation, active colonization, or previous clinical or subclinical fungal infections. Of 23 MJ-smoking patients tested, 13 had precipitins to Aspergillus antigens. This 52% incidence is significantly greater than both our control group (p < 0.02) and the normal 3% to 10% incidence in populations reported by Chmelik et al.<sup>29</sup> Furthermore, there was no correlation between the presence of precipitins and the total estimated MJ exposure. Since 13 of 14 MJ samples contained at least one Aspergillus species and the contaminated MJ cigarettes were shown to deliver viable organisms, it is not unreasonable to assume that our patients acquired their precipitins from smoking MJ. We were, however, unable to determine whether pulmonary infections or colonizations were present in these patients, although both occurrences were possible.

In vitro cellular immune responses to Aspergillus antigens in aspergillosis, in contradistinction to serum precipitins, rarely correlate with disease activity.<sup>30</sup> Substantiating this, we found no correlation between blastogenesis to Aspergillus antigens and the presence of serum precipitins (Table I). Of special interest was the finding that our index case (patient I) possessed adequate cellular immune responses to A. fumigatus and A. niger antigens despite his disseminating systemic aspergillosis. Perhaps, because of his malfunctioning PMN enzyme system, he was unable to either completely metabolize Aspergillus antigens or sufficiently inhibit hyphal growth. The fungus would then be able to proliferate even though an active cellular immune response existed.

As illustrated by this patient, diseases induced by the inhalation of viable fungal spores depend primarily on the host's innate immune and metabolic capabilities. A defect in PMN metabolism, coexistent with fungal inhalation, may lead to the development of either systemic invasive mycoses or a fungus ball. We anticipate that future reports may continue to substantiate the already increasing incidence of systemic aspergillosis, especially if oncology patients continue to be exposed to MJ smoke.

The use of MJ thus assumes the risks of both fungal exposure and infection, as well

as the possible induction of a variety of immune and infectious lung disorders. Given the extraordinary number of individuals estimated to be MJ smokers, the occurrence of these illnesses may well become more commonplace.

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REFERENCES

1. McGlothlin W: Epidemiology of marihuana use. National Inst Drug Abuse Res Monogr Series 14:38, 1976.
2. Rhein RW Jr: Marijuana therapy. Medical World News, April 28, 1980, pp. 39-49.
3. Editorial: Marihuana for nausea and vomiting due to cancer chemotherapy. Med Lett 22:41, 1980.
4. Salmonellosis traced to marijuana—Ohio, Michigan: Morbidity and Mortality Weekly Report, 30:77, 1981.
5. Cates W, Warren JW: Hepatitis B in Nuremberg, Germany. JAMA 234:930, 1975.
6. Llewellyn GC, Orear CE: Examination of fungal growth and aflatoxin production on marihuana. Mycopathologia 62:109, 1977.
7. Chusid MJ, Gelfand JA, Nutter C, Fauci AS: Pulmonary aspergillosis, inhalation of contaminated marijuana smoke, chronic granulomatous disease. Ann Intern Med 82:682, 1975.
8. Llamas R, Hart DR, Schneider NS: Allergic bronchopulmonary aspergillosis associated with smoking moldy marijuana. Chest 73:871, 1978.
9. Kagen SL, Sohnle PG, Kurup VP, Fink JN: Marijuana smoking as a source of Aspergillus exposure, in Proceedings of the 37th Annual Meeting of the American Academy of Allergy, March 1981, San Francisco, Calif., p. 63.
10. Kagen SL, Sohnle PG, Kurup VP, Fink JN: Aspergillus: an inhalable contaminant of marijuana. N Engl J Med 304:483, 1981.
11. Kurup VP, Fink JN, Scribner GM, Falk MJ: Antigenic variability of Aspergillus fumigatus strains. Mycobios 19:191, 1978.
12. Kurup VP, Barboriak Fink JJ, Lechevalier MP: Thermoactinomyces candidus, a new species of thermophilic actinomycetes. Int J Syst Bacteriol 25:150, 1975.
13. Fink JN, Tebo T, Barboriak JJ: Characterization of human precipitating antibody to inhaled antigens. J Immunol 103: 244, 1969.
14. Edwards JH: The double-dialysis method of producing farmer's lung antigens. J Lab Clin Med 79:683, 1972.
15. Sohnle PG, Collins-Lech C: Cell-mediated immunity to Pityrosporum orbiculare in tinea versicolor. J Clin Invest 62:45, 1978.
16. Sallan SE, Zinberg NE, Frei E III: Antiemetic effect of delta-9-tetrahydrocannabinol in patients receiving cancer chemotherapy. N Engl J Med 293:795, 1975.
17. Herman TS, Einhorn LK, Jones SE et al: Superiority of nabilone over prochlorperazine as an antiemetic in patients receiving cancer chemotherapy. N Engl J Med 300:1295, 1979.
18. Chang AE, Shilling DJ, Stillman RC et al: Delta-9-tetrahydrocannabinol as an antiemetic in cancer patients receiving high-dose methotrexate. Ann Intern Med 91:812, 1979.
19. Frytak S, Moertel CG, O'Fallon JR et al: Delta-9-tetrahydrocannabinol as an antiemetic for patients receiving cancer chemotherapy. Ann Intern Med 91:825, 1979.
20. Sallan SE, Cronin C, Zelin M, Zinbert NE: Antiemetics in patients receiving chemotherapy for cancer. N Engl J Med 302:135, 1980.
21. Lucas VS, Laszlo Delta-9-tetrahydrocannabinol for refractory vomiting induced by cancer chemotherapy. JAMA 243: 1241, 1980.

22. Roffman RA: Using marijuana in the reduction of nausea associated with chemotherapy. Seattle, 1979, Murray Publishing Co., Inc., p. 31.

23. Pink JN: Hypersensitivity pneumonitis, in Middleton E Jr, Reed CE, Ellis EF, editors: Allergy: principles and practice. St. Louis, 1978, The C. V. Mosby Co., pp. 855-87.

24. Yocum MW, Saltzman AR, Strong DM et al: Extrinsic allergic alveolitis after Aspergillus fumigatus inhalation. *Am J Med* 61:939, 1976.

25. Prystowsky SD, Vogelstein B, Ettinger DS et al: Invasive aspergillosis. *N Engl J Med* 295:655, 1976.

26. Krick JA, Remington IS: Opportunistic invasive fungal infections in patients with leukemia and lymphoma. *Clin Haematol* 5:249, 1976.

27. Mahoney DH, Steuber CP, Starling KA et al: An outbreak of aspergillosis in children with acute leukemia. *J Pediatr* 95:70, 1979.

28. Lehrer RI, Howard DH, Sypherd PS, Edwards JE, Segal GP, Winston DJ: Mucormycosis. *Ann Intern Med* 93:93, 1980.

29. Chmelik R, Flaherty DK, Reed CE: Precipitating antibodies in office workers and hospitalized patients directed toward antigens causing hypersensitivity pneumonitis. *Am Rev Respir Dis* 111:201, 1975.

30. Goldstein RA: Cellular immune responses in aspergillosis. *J Allergy Clin Immunol* 61:229, 1978.

31. Fraser DW: Aspergillosis and other systemic mycoses: the growing problem. *JAMA* 242:1631, 1979.

#### SPECIAL ORDERS

The SPEAKER pro tempore (Mr. TONKO). Under the Speaker's announced policy of January 6, 2009, and under a previous order of the House, the following Members will be recognized for 5 minutes each.

The SPEAKER pro tempore. Under a previous order of the House, the gentlewoman from Florida (Ms. WASSERMAN SCHULTZ) is recognized for 5 minutes.

(Ms. WASSERMAN SCHULTZ addressed the House. Her remarks will appear hereafter in the Extensions of Remarks.)

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from Texas (Mr. POE) is recognized for 5 minutes.

(Mr. POE of Texas addressed the House. His remarks will appear hereafter in the Extensions of Remarks.)

#### THE NIGHTMARE ACT

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from California (Mr. ROHRABACHER) is recognized for 5 minutes.

Mr. ROHRABACHER. Mr. Speaker, tonight this Congress passed the so-called DREAM Act. Several of us on the floor of the House said that this act would be more accurately referred to as the "affirmative action amnesty act."

The bill is a piece of legislation that the American people should pay close attention to, and they should see whether or not their Representatives

in Congress are, indeed, representing their interests or if they are involved in supporting the interests of the people who are not citizens of this country and who have come here illegally.

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Now in this case, this bill would not grant amnesty to all illegal immigrants, but instead, the reason it's called the DREAM Act is because it would legalize the status of several million illegals who are young people in our country. Well, what does several million new citizens—or should we say legal residents—of our country mean to the well-being of the American people? Yes, we understand that several million young illegals now made legal in their status would certainly be their dream, but what does it do to other Americans? What is the effect? Is it a dream or a nightmare? The American people need to look and see who voted for what and who is representing whose interests here.

I want to note that illegal immigration is probably one of the greatest threats to the well-being of my constituents, and they understand that. And I would think that people throughout our country understand that the quality of our education is going down, the quality of America's health care is going down, our personal security—meaning the security of our neighborhoods and our families—is going down as the criminal justice system is put under incredible strains by this massive flow of illegals into our country.

By legalizing the status of 2 million younger illegal immigrants, what we are doing is making sure that those people who are considering coming to our country illegally will certainly bring their children—all of them—with them, realizing that the chances are that if the American people see that someone's here illegally and is a young person, we now have set the precedent that we will legalize their status sometime in the future.

What we are really talking about is encouraging a massive flow of illegals into our country bringing their children with them. And what will that do to the education system of our country? What will that do to the health care requirements that people now are finding that their own health care facilities are overcrowded and that the budgets for providing health care to the less fortunate are being strained to the breaking point throughout the country?

This bill was done at the expense of the American people. The young people who they are helping, the young people who supposedly would be assisted in getting a college education if they go to school, they're going to have their status legalized. Yes, those people may be helped, but it is being done directly at the expense of the American people.

This is about as bad as it gets when we have Members of Congress that, instead of considering what this will do, what their actions will do in harm to

their own constituents, have decided just to, yes, side with those people—who are wonderful people overseas. There is no doubt about most of the young people we are talking about, and most of the illegal immigrants coming into our country are wonderful people, but their well-being—we are not being selfish by suggesting that at a time of unemployment, a time when the budgets for all of our own programs are being strained to the breaking point, that we have to take care of our own people before we encourage other people to come here illegally.

I am proud that our country has a very liberal and open policy for immigration. We allow more legal immigrants into our country than any other country of the world. In fact, all of the other countries of the world combined do not permit the legal immigration into their societies as we permit into America. But if we don't watch out for our people, if we do not carefully look at this issue and try to say what is good for our people, our people will be severely damaged, and that will be the product of the DREAM Act. It will be the Nightmare Act of the American people.

Perhaps the worst element of this is this bill—and I know there are many people who are suggesting that that's not true, but it is true that this bill will provide an affirmative action status for those illegals who have been legalized who happen to come from a minority background. Now, most illegal immigrants who come here are Hispanics or some other minority. Thus, if their status is legalized, all of a sudden all of the laws that give preference to minorities in the United States, all of these preferences are provided to these people who were illegal just a few days ago.

We are not providing equality. What we're providing is that illegals now will take their spot at the head of the line when it comes to job training, when it comes to education and being accepted at universities. In terms of all of these types of programs in which racial preferences have been written into the law, these illegals will now have a status ahead of U.S. citizens. This is about as bad as it gets.

This Congress is supposed to represent the interests of the American people. In this case, the interests of the American people were betrayed with a misplaced value system being focused on the plight of, yes, some very deserving young people—several million of them—who are here illegally. I would hope that the American people take a look closely at this vote and realize what it signifies.

There are many people struggling right now in our country. Our social programs are strained to the breaking point. And yes, what happens when you legalize the status of several million young people and you make sure that these young people, many of whom are of a minority status, that they then receive the preferences written into our